



# National Transportation Safety Board

## Marine Accident Brief

### *Collision between M/V Maersk Wisconsin and Tug and Barge Unit in Kill Van Kull*

<b>Accident no.</b>	DCA-12-LM-003
<b>Accident type</b>	Collision
<b>Vessels</b>	Containership <i>Maersk Wisconsin</i> and tug and barge unit <i>Ruth M. Reinauer</i> and <i>RTC 102</i>
<b>Location</b>	Kill Van Kull, near Bergen Point, New Jersey 40°38.9' N, 74°08.5' W
<b>Date</b>	December 5, 2011
<b>Time</b>	0213 eastern standard time (universal time coordinated – 5)
<b>Injuries</b>	None
<b>Property damage</b>	\$295,000
<b>Environmental damage</b>	None
<b>Weather</b>	Widespread fog, 3–5 mph south winds, visibility about 0.25 mi., air temperature 44° F
<b>Waterway characteristics</b>	<b><i>Kill Van Kull:</i></b> 3-mile-long tidal strait between Staten Island, New York, and Bergen Point, New Jersey <b><i>At accident location:</i></b> about 1,150 ft. wide, controlling depth 45 ft., current speed 0.9 knots, direction 274° true



The *Maersk Wisconsin* at anchor. Photo by Jeff Byrd, available at [www.shipspotting.com](http://www.shipspotting.com).

The containership *Maersk Wisconsin*, assisted by two tugs, left Port Elizabeth, New Jersey, in the early morning hours of December 5, 2011, to begin its transit south toward Kill Van Kull, through New York Harbor, and then to sea for its destination in the United Arab Emirates. At 0213, with fog reducing visibility to about 0.25 miles, the containership collided with a tug and barge unit in Kill Van Kull channel near Bergen Point, New Jersey.

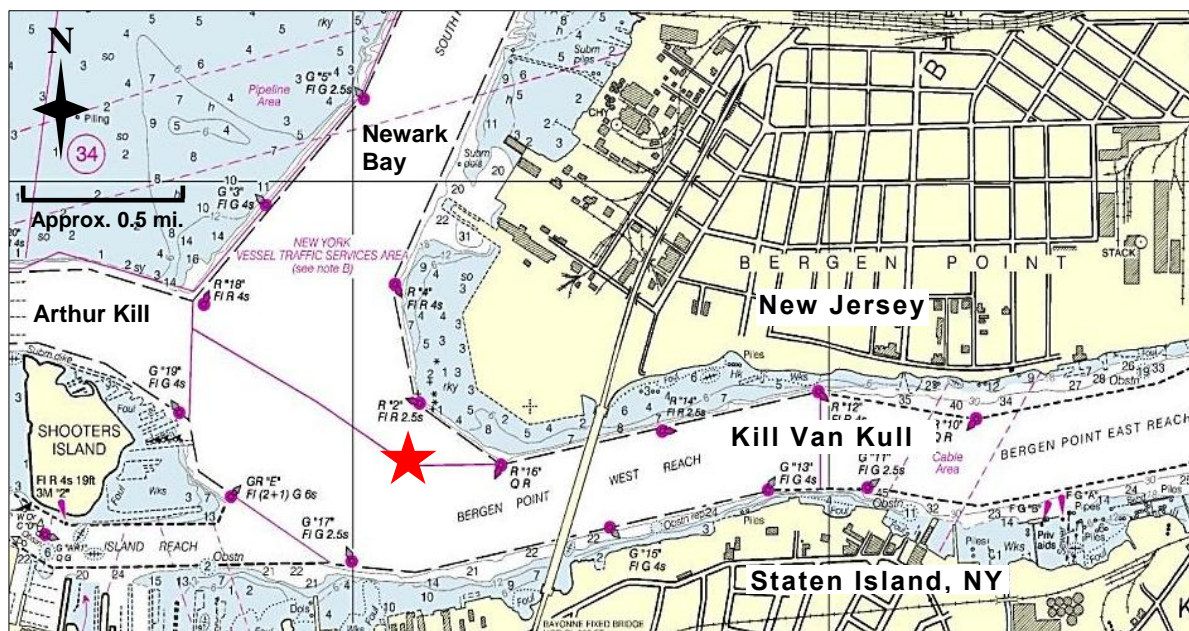
## Collision between M/V Maersk Wisconsin and Tug and Barge Unit in Kill Van Kull

The tug *Ruth M. Reinauer* was pushing barge *RTC 102* westbound in Kill Van Kull, a narrow, busy waterway connecting New York Harbor Upper Bay to the east and Newark Bay and Arthur Kill about 3 miles to the west near Bergen Point, New Jersey. The *Ruth M. Reinauer* and barge *RTC 102* formed an articulated tug and barge unit—the tug and barge locked together to form one vessel allowing hydrodynamic efficiencies resulting in greater sea speed and sea keeping.



The integrated tug-barge unit *Ruth M. Reinauer* and *RTC 102*. Photo by Jack Clifford, available at [www.marinetraffic.com](http://www.marinetraffic.com).

The tug and barge unit's intended course was west on Kill Van Kull to the Arthur Kill. The excerpt below from National Oceanic and Atmospheric Administration (NOAA) chart 12333 shows the accident location.



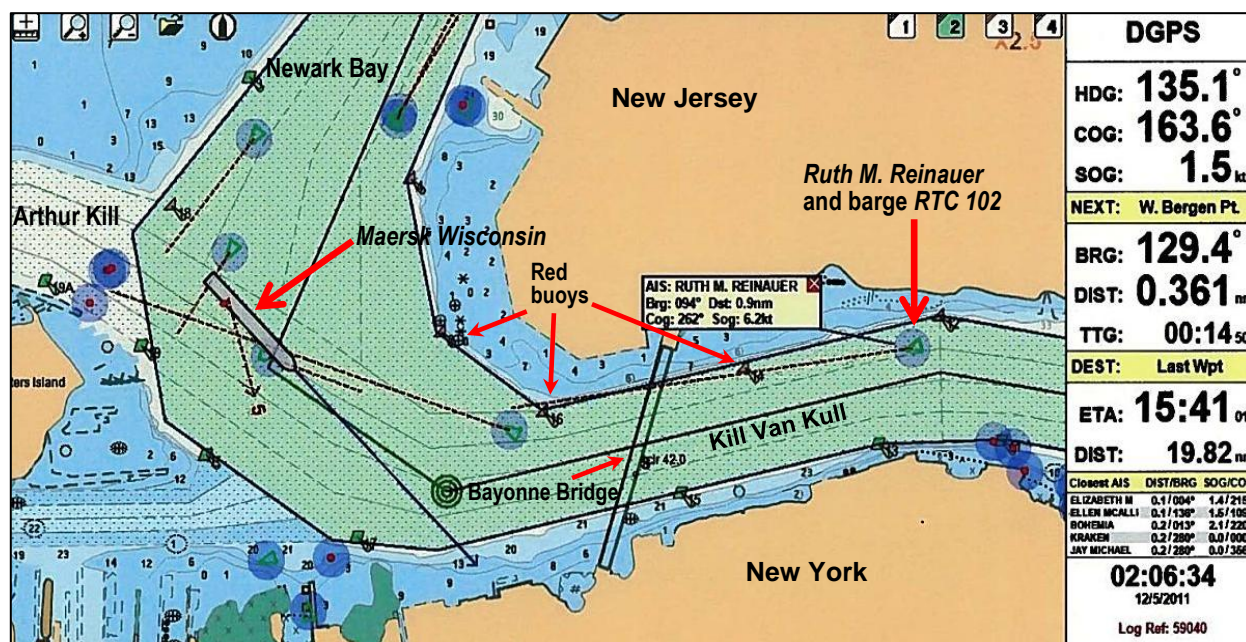
Extract from NOAA chart 12333 showing the accident location, indicated by the red star.



## Collision between M/V Maersk Wisconsin and Tug and Barge Unit in Kill Van Kull

About 0120, the *Maersk Wisconsin* was approximately 1 nautical mile from the point at which Newark Bay joins the Kill Van Kull channel. One tug was positioned off the starboard bow, the other tug off the port quarter. With fog developing and visibility diminishing, the docking pilot reduced the speed of the vessel to about 2 knots and sounded the vessel's fog signal.

Radio communications were obtained from voyage data recorder audio included in the Coast Guard accident investigation report. At 0158, the docking pilot was positioning to make a port turn to shape up for passing under the Bayonne Bridge in Kill Van Kull when he asked the second pilot on board to radio the *Ruth M. Reinauer* to request the tug and barge to hold back. The mate of the *Ruth M. Reinauer* responded that a flood current off his vessel's stern prevented him from holding back. The *Maersk Wisconsin* docking pilot acknowledged and suggested instead that the tug and barge stay "tight on the reds," referring to the red buoys on the New Jersey side of Kill Van Kull. The mate on board the tug agreed to this port-to-port meeting arrangement and continued his westbound course at 6 knots.



Screen image obtained from a pilot's laptop computer on board the *Maersk Wisconsin* with labels added indicating landmarks and waterways as well as vessel positions about 7 minutes before the collision.

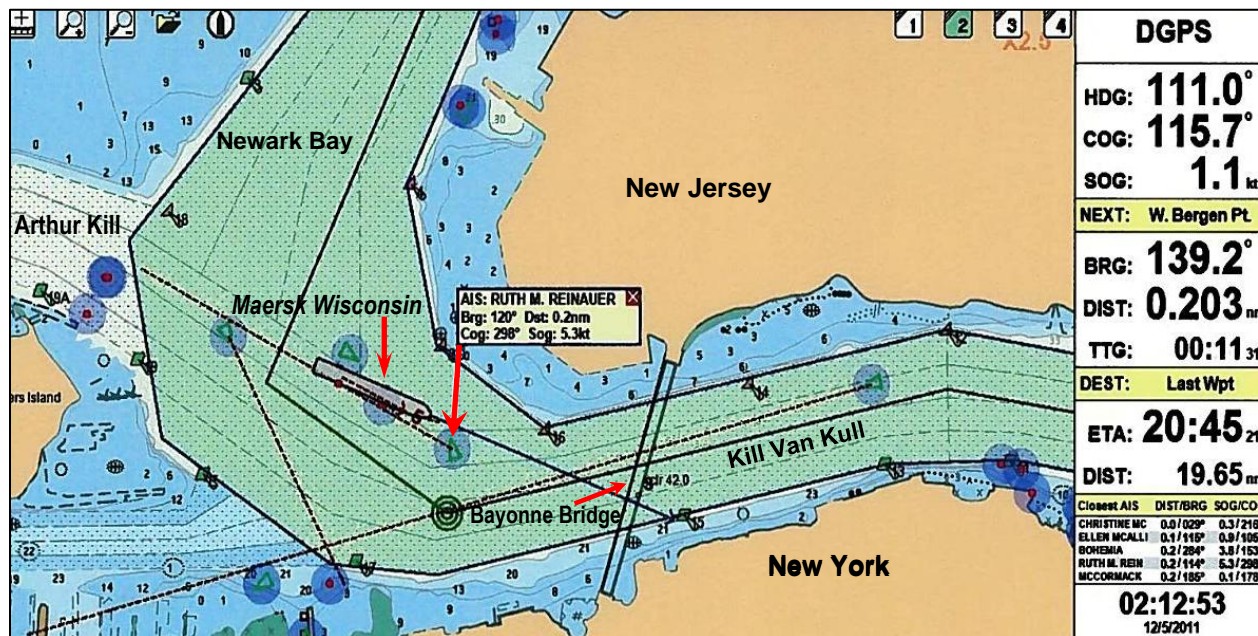
About 9 minutes later, at 0207, the *Maersk Wisconsin* docking pilot told the mate of the *Ruth M. Reinauer* that the two vessels would meet on the west side of the bridge and that the *Maersk Wisconsin* was proceeding slowly (about 1–2 knots) and would give the tug and barge space to pass. At 0208, the docking pilot radioed the tug to say the *Maersk Wisconsin* would be "closer to the reds [red buoys] than we want to be." He received no response from the *Ruth M. Reinauer* at that time.

At 0211, the docking pilot ordered the *Maersk Wisconsin*'s engine to slow astern. About the same time, the mate on board the *Ruth M. Reinauer* radioed the docking pilot and said, "You're turning right into me, captain." The docking pilot responded that the *Maersk Wisconsin* was all stop. The mate on the *Ruth M. Reinauer* replied that his tug and barge were right up

## Collision between M/V Maersk Wisconsin and Tug and Barge Unit in Kill Van Kull

against the red buoys, and the docking pilot instructed the mate to keep coming and to proceed around the *Maersk Wisconsin*.

Less than a minute later, the *Ruth M. Reinauer* mate radioed, “Hey captain, have your tugs push you away” but received no reply. On the *Maersk Wisconsin*, the pilot ordered, “Start thrusters and [engine] full astern.” The mate of the *Ruth M. Reinauer* attempted to use engines to maneuver his vessel to avoid a collision. About 0213, the bow of the *Maersk Wisconsin* contacted the port side midships of the barge *RTC 102*. At the time of the collision, the speed of the *Maersk Wisconsin* was less than 1 knot, and the speed of the *Ruth M. Reinauer* was about 5 knots.



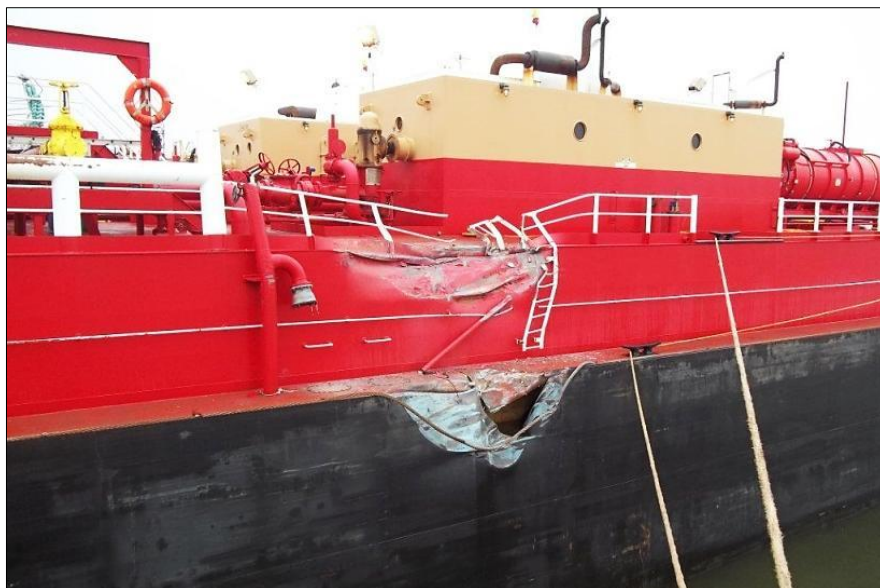
Screen image from a pilot's laptop computer on board the *Maersk Wisconsin* showing position and navigational data at the approximate time of collision.

No one was injured on board either vessel, and no pollution or loss of cargo resulted from the accident. Personnel on both vessels, including both *Maersk Wisconsin* pilots, held appropriate merchant mariner's credentials issued by the US Coast Guard for the route, scope of operation, and service of each vessel. Following the accident, three crewmembers on the *Ruth M. Reinauer*, nine crewmembers on the *Maersk Wisconsin*, and the docking pilot were tested for illegal drugs and alcohol. All test results were negative.

Both the containership *Maersk Wisconsin* and the barge *RTC 102* were damaged in the collision. On the *RTC 102*, two port side ballast tanks were holed at the deck level and sustained side shell plate damage and upset of internal framing. Some frame and plate damage was also noted in a cargo tank.



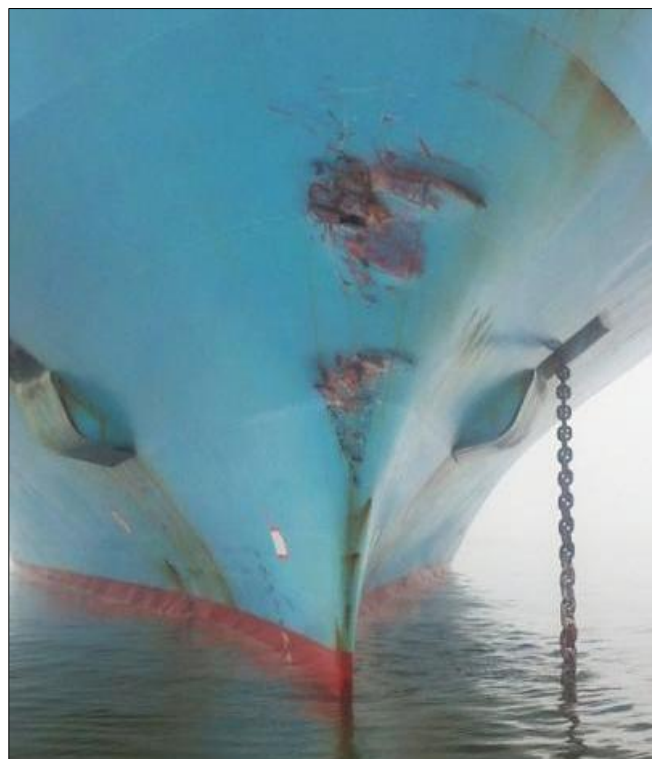
## Collision between M/V Maersk Wisconsin and Tug and Barge Unit in Kill Van Kull



Portside damage to the *RTC 102*.

The bow of the *Maersk Wisconsin* (fore peak void) sustained shell plate damage and was holed about 23 feet above the waterline. Internal framing of that compartment was also distorted.

The initial total estimated damages to the *Maersk Wisconsin* and the *RTC 102* exceeded \$500,000.



Damaged bow of the *Maersk Wisconsin*.  
Photo by US Coast Guard

## Collision between M/V Maersk Wisconsin and Tug and Barge Unit in Kill Van Kull

### Probable Cause

The National Transportation Safety Board determines that the probable cause of the collision was the failure of the docking pilot on board the *Maersk Wisconsin* to position his vessel according to the meeting arrangement with the *Ruth M. Reinauer* to allow adequate separation for passage of the tug and barge in the navigable channel.

### Vessel Particulars

Vessel	<i>Maersk Wisconsin</i>	<i>Ruth M. Reinauer</i>	<i>RTC 102</i>
<b>Owner/operator</b>	Maersk Line, Limited (MLL)	Reinauer Transportation Companies, LLC	Reinauer Transportation Companies, LLC
<b>Port of registry</b>	Norfolk, VA	New York, NY	New York, NY
<b>Flag</b>	United States	United States	United States
<b>Type</b>	Freight ship	Uninspected towing vessel	Double-hulled tank barge, ocean service
<b>Builder/date</b>	Hyundai Heavy Industries, 2000	Senesco Marine, 2009	Senesco Marine, 2008
<b>Official number (US)</b>	1217621	1214704	1214663
<b>IMO number</b>	9193252	N/A	N/A
<b>Length</b>	958 ft. (292 m)	112 ft. (34 m)	390 ft. (118 m)
<b>Width</b>	106 ft. (32)	35 ft. (11 m)	74 ft. (23 m)
<b>Draft</b>	44 ft. (13.4 m)	22 ft. (6.7 m)	22 ft. (6.7 m)
<b>Gross/ITC tonnage<sup>a</sup></b>	50,698 gross (62,441 ITC)	191 gross (627 ITC)	6,545 gross (7,120 ITC)
<b>Engine power and type</b>	MAN B&W 49,810-hp (36,635 kW) diesel direct	2 MTU diesels at 2,360 hp (1,736 kW) each	N/A
<b>Propellers</b>	1 right-turn	2 Nautican 104-inch	N/A
<b>Rudder</b>	1 standard spade	Triple shutter rudders	
<b>Cargo</b>	4,300 TEU <sup>b</sup> containerized freight	N/A	Grade A and lower petroleum cargo
<b>Crew complement</b>	22	7	Unmanned
<b>Other persons on board</b>	2 pilots	0	N/A

<sup>a</sup> Tonnage according to the International Tonnage Convention.

<sup>b</sup> Twenty-foot equivalent unit.

For more details about this accident, visit <http://www.nts.gov/investigations/dms.html> and search for NTSB accident ID DCA12LM003.

**Adopted: April 23, 2013**

The NTSB has authority to investigate and establish the probable cause of any major marine casualty or any marine casualty involving both public and nonpublic vessels under 49 *United States Code* 1131. This report is based on factual information provided by the US Coast Guard from its informal investigation of the accident. The NTSB did not conduct its own on-scene investigation.